4155-102 IG4-09.2-FWC

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

- 226. (Previously submitted) A recombinant vector comprising a DNA regulatory element operably linked to a DNA molecule that encodes a wild-type human cystic fibrosis transmembrane conductance regulator protein, wherein the DNA molecule is capable of stable propagation in *E. coli*.
- 227. (Previously submitted) A recombinant vector comprising a DNA regulatory element operably linked to a DNA molecule encoding the cystic fibrosis transmembrane conductance regulator protein of Figure 15 wherein the DNA molecule is capable of stable propagation in *E. coli* as a result of:
 - (a) said DNA regulatory element permitting maintenance of the DNA molecule in *E. coli* at a low copy number, or
 - (b) the nucleotide sequence of the DNA molecule being modified to disrupt its expression in *E. coli* while allowing its expression in mammalian cells.

228. (New) A DNA molecule comprising:

- (a) a DNA sequence that encodes wild-type human cystic fibrosis transmembrane conductance regulator protein, and
- (b) at least one regulatory element operably linked to said uninterrupted DNA sequence which element permits transcription of the uninterrupted DNA sequence in a host prokaryotic cell.
- 229. (New) A DNA molecule according to claim 228 wherein said DNA sequence contains at least one silent mutation which stabilizes expression of the gene.
- 230. (New) A plasmid comprising a DNA molecule according claim 228.
- 231. (New) A host prokaryotic cell comprising a plasmid according claim 230.

- 232. (New) A DNA molecule comprising:
 - (a) an uninterrupted DNA sequence that encodes wild-type, human cystic fibrosis transmembrane conductance regulator protein, and
 - (b) at least one regulatory element operably linked to said uninterrupted DNA sequence which element permits transcription of the uninterrupted DNA sequence in a host eukaryotic cell.
- 233. (New) The DNA molecule according to claim 232 wherein said regulatory element DNA corresponds to at least a portion of the genome of a virus which portion is cable of infecting the host eukaryotic cell.
- 234. (New) A recombinant vector according to claim 233 wherein the virus is a retrovirus.
- 235. (New) A viral vector containing an encoding sequence for human CFTR.
- 236. (New) A vector capable of being replicated in an *E. coli* host cell, wherein said vector that contains an encoding sequence for human CFTR and is suitable for use in gene therapy.
- 237. (New) A method of treating cystic fibrosis with gene therapy comprising the step of contacting a patient affected therewith with a purified and isolated DNA molecule that includes a nucleotide sequence that encodes human CFTR protein, wherein said encoding sequence consists essentially of a continuous cDNA.
- 238. (New) A viable host *E. coli* cell that comprises a DNA sequence coding for human CFTR protein.
- 239. (New) A host *E. coli* cell according to claim 238 that comprises a plasmid, itself comprising a CFTR-encoding DNA sequence, wherein said plasmid can be maintained and propagated in said cell.

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